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the errors of the Lunar Tables in places in the *Nautical Almanac*, it will be a very strong argument for new Lunar Tables being made, based on all the recomputed Greenwich Observations, including the discoveries of Hansen, Adams, and others.

"Further, he should never depend on *Nautical Almanac* or anything else for the diameter of any heavenly body, but measure it for himself with his own instruments, and, comparing the result with the *Nautical Almanac* for the time, get the correction due to that cause: and always apply this correction in any case wherein the *Nautical Almanac* value must be used, as when the moon is near conjunction."

Remarks by Mr. Carrington on presenting to the Society printed Copies of Nine Circumpolar Charts.

"I have the pleasure this evening to present to the Society printed copies of nine draft maps, on a scale of an inch and a half to the degree, containing all the stars above the 11th magnitude, and many of the 11th within 9° of the north pole. These maps are the result of a first examination of the region I have selected for observation, and were formed principally with the object of making a provisional catalogue for my own use, during the second stage of accurate observation on the meridian. They have been entirely executed with my $4\frac{1}{2}$-foot equatoreal, described in the last *Monthly Notice*.

"The process followed in their construction was first to zone over the region in two broad zones, of which the first extended from 4° to $9^\circ\frac{1}{2}$, N.P.D., and the second from 5° above to 5° below pole. From March 25th to May 20th of the present year, 20 zones were thus observed, which, when reduced and cleared of duplicates, yielded about 2000 net points for a foundation for the maps. The degree of accuracy attained was quite sufficient for the purpose. The stage of filling in was then proceeded with, and terminated on Nov. 8th. In each case a skeleton map was first prepared of the stars observed in the zones, and then filled in by estimation, considerable pains being taken to get satisfactory alineations. The map was then copied on a glass desk, through which the light of the sun was made to pass; and the copy was again compared with the heavens, a general revision and the adjustment of the relative magnitudes being chiefly attended to. It is the date of this second comparison which is given on the maps. From this corrected copy two copies were taken; one in common ink for my final standard copy, and one in anastatic ink for transfer by the printer, whose proofs were compared with and corrected by my standard copy.

"My printer was Mr. Rudolph Appel, of No. 43 Gerrard Street, Soho, and his charge for fifty copies of the same map, including cost of transfer and paper, twelve shillings. Believing that the anastatic process of printing has not been previously applied to the ready and cheap production of star maps, I beg to call attention to these maps, as specimens of what may be done, and to add at

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the same time that the excellence of the result increases with the artistic skill of the author.

" I particularly wish it to be understood that I regard the present maps as imperfect, and merely as drafts, although tolerably complete as maps go, and well filled in. Any one who has worked on a map will have found, that to produce one which shall be satisfactory as a picture to the eye of another observer using a different telescope, it is very necessary for him to go over his map at different times, using different apertures. This has not, at present, been done for these maps. The sensible presence of twilight during the months of June and July has been another source of imperfection. For, as the nine maps are very nearly of equal spherical area, they ought to be very accurate guages of the polar region; but, owing to the cause named, and to the effect of thin fog on every night given to map No. 3, this relation is nullified for the present.

" I have distinguished by wings all those stars which are stated by Argelander in his *Uran. Nova* to be visible to the naked eye; by the letter D all those stars which, under a power of 28, appeared to consist of two components, too close to be represented together on the map; and by the letter N all places which appeared nebulous, and at which I should halt in sweeping for comets, although it is very possible that some of them may be clusters easily resolvable under moderate powers. Other stars I have in all cases distinguished by dots of different sizes; a method of representing magnitudes which, as more pictorial, I prefer to any other.

" I may mention, in conclusion, that during the formation of these maps I was soon struck with the frequency with which little meteoric sparks passed my field of view, often leaving behind little trains of light, and that, finding it an almost constant phenomenon, I took to noting down their paths on my working-maps as I proceeded. In this way I have collected 49 little paths of very various directions, but among which one may, perhaps, trace the existence of a little shoal crossing the pole in lines generally parallel to the meridian from 1^h to 13^h R.A. On the second night of the Laurentius stream this year, there was a marked increase in the number seen; seven were marked down, while others flew through the field too quickly to be caught. As I also perceived increased activity on several cold and windy nights, these minute telescopic meteors appear to consist of two classes, like their larger brethren, those of the naked eye, namely, one of a cosmical and one of an electrical origin."

Redhill Observatory.

On a Mode of Mounting a Telescope equatoreally.

By Mr. Joseph Hopkins.

" Having recently taken out a patent for ' a mode of obtaining a straight line parallel to the earth's axis, or of making the axis of a tube or the axis of a telescope parallel thereto,' which (amongst

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